

# Chapter 12.15

## Job-Specific Performance Requirements - General Information

### 1. General job-specific performance requirements

You shall follow these requirements for asbestos jobs:

- a. Attachments 12A-12G, in Appendix 12B, contain individual JPRs for the most common jobs at JSC that potentially involve ACM. Table 12.15-1 lists the activities by class of asbestos work as defined in Chapter 12.4 of this handbook. All JPR numbers reflect the class of asbestos work being performed. Table 12.15-1 also lists the attachment from Appendix 12B that describes the performance requirements. Each description in the appendices provides sufficient information to determine which jobs fit within the procedure.
- b. Following the job description in each attachment is a listing of minimum requirements for completing the described asbestos work. These listings may not be complete, and trained asbestos workers are expected to perform all classes of asbestos-related work using industry-accepted work practices and controls. Work supervisors and competent persons shall exercise discretion on some requirements; e.g., determining the size of containment system or enclosure for Class I asbestos work.
- c. Table 12.15-1 also lists the *minimum* training requirements needed to perform each JPR. The training abbreviations shown in the table, and their meanings from Chapter 12.5, paragraph 3, are:
  1. 32-hour worker: Training specified in 40 CFR 763, Subpart E, Appendix C, for all Class I work and Class II work, to include the use of critical barriers and negative pressure enclosures.
  2. 16-hr O&M: Training specified in 29 CFR 1926.1101(k)(9)(v) and 40 CFR 763(a)(2) for Class III operations and maintenance work, involving Class III glovebag or spot abatement activities.
  3. JSC 6-hr: Training for restricted Class III asbestos operations and maintenance work as shown in Chapter 12.5, paragraph 3. This training does not allow workers to perform removal of any amount of ACM.
  4. 2-hr: Class IV awareness training required by 29 CFR 1926.1101(k)(9)(vi) and 40 CFR 763(a)(2) for housekeeping and custodial activities.
  5. RFCI: Training in the methods specified by the RFCI for the removal of resilient floor coverings and adhesives that contain asbestos. The specific methods used may be found in the RFCI document “Recommended Work Practices for Removal of Resilient Floor Coverings” at [http://www.rfci.com/int\\_ARF-TechInfo.htm](http://www.rfci.com/int_ARF-TechInfo.htm).
- d. If you do not find the asbestos-related work in one of the listed procedures in Table 12.15-1 or Attachments 12A-12G, in Appendix 12B, define the job by the class of

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asbestos work as found in Chapter 12.4 of this handbook or in 29 CFR 1926.1101, then develop an alternative procedure as required by Chapter 12.2 of this handbook.

- e. Plan all asbestos-related work following the procedures in Chapter 12.1 and 12.2 of Part 12 of this handbook.

### 2. Exposure control program

The underlying assumptions behind the development of the exposure controls reflected in the JPRs are:

- a. All tasks involving potential asbestos exposure require some degree of control. Hence, the removal of even one ceiling tile in a building known to contain asbestos SAI is covered by Part 12. The degree of control is tailored to the potential of exposure to workers and building occupants.
- b. When it is necessary to open an area of suspended ceiling in a building containing SAI, such that a total of 32 ft<sup>2</sup> or more (i.e., the fourth contiguous ceiling tile) is exposed, you shall erect a small enclosure.
- c. Spot removals of less than 1 contiguous square foot of SAI do not require the erection of a small enclosure, provided that safeguards such as wetting and catching the material close to the scrape and protection of underlying areas are taken and the total waste generated does not exceed the capacity of a standard asbestos waste bag.
- d. Spot removals between 1 and 3 ft<sup>2</sup> contiguous of SAI require the erection of a small enclosure, but do not require specific decontamination facilities such as showers. Place the enclosure under local negative pressure using a HEPA-filtered vacuum cleaner or negative-pressure systems as described within Part 12. Klean Kubes, or equivalent units, are commercially available for this purpose.
- e. Any job that requires the removal of 3 ft<sup>2</sup> contiguous or greater of asbestos from a surface (other than a pipe surface if glovebag procedures are used), or that has a sufficient number of small-scale spot removals such that the cumulative amount of insulation removed exceeds 35 ft<sup>3</sup>, 160 ft<sup>2</sup>, or 260 linear feet of pipe is, under this program, a major asbestos removal operation. Major removals require the submission of a work plan to the APM that details how the enclosure, decontamination, monitoring, recordkeeping, and clearance requirements are to be satisfied.
- f. The above assumptions represent JSC's best effort to interpret the OSHA and EPA guidelines, which are based on specific fiber concentrations, and establish a workable program for controlling asbestos exposure. The OHD will monitor various jobs to determine whether the degree of control described above provides adequate environmental and health protection. Therefore, the performance requirements may be revised; e.g., it may be necessary to reduce the small enclosure criteria to below 32 ft<sup>2</sup>, if controls are inadequate.

### 3. Waivers to job performance requirements

Except for JPR III-13 (see Attachment 12F), no waivers to the JPR procedures in Appendix 12B, Attachments 12A through 12G will be issued. The following requirements apply:

- a. In buildings with SAI, raised computer floors and sub-floors may contain SAI debris from activities performed in the building before asbestos work was regulated at JSC. The entry into any computer floor or sub-floor, in a building containing SAI, is normally considered Class III asbestos work governed by JPR III-13. The JSC Occupational Health Officer, or his or her designee, may issue a waiver releasing workers from these Class III requirements under the following conditions:
  1. The area can be easily delineated above and below the raised flooring into “clean” and “dirty” sections. Normally, the delineation shall be done by rooms defined by hard walls above the floor. The Occupational Health Officer, or his or her designee, may establish other delineation in special cases.
  2. Clean the area below the raised floor (as well as any equipment or cabling below the floor), the flooring support structure, and the flooring tiles using wet-wiping and mopping methods and HEPA-vacuuming. Clean any items removed from the sub-floor area by wet-wiping or HEPA-vacuuming as the items are removed from the floor. Clean following the procedures shown in JPR III-13. Workers performing these activities shall wear protective clothing and respiratory protection.
  3. The JSC Occupational Health Officer, or his or her designee, will visually inspect the sub-floor area after cleaning. The basic standard of cleanliness for the sub-floor area is no visible dust or debris.
  4. When the JSC Occupational Health Officer, or his or her designee, is satisfied with the cleanliness of the sub-floor area, he or she will issue a JPR III-13 waiver for the specific area cleaned. Post the waivers on the JSC Health Home page at <http://sd.jsc.nasa.gov/omoh/scripts/OccupationalHealth/AsbestosInfo.aspx> and file them with the OHD. The waivers, once issued, do not expire.
  5. Personnel entering an area with a JPR III-13 Waiver are encouraged to use a HEPA vacuum for periodic housekeeping under the sub-floor.
- b. Although a waiver to JPR III-13 procedures may be issued, other installed suspect ACM may be beneath the sub-floor. These materials may include, but are not limited to, cementitious pipe chase materials, transite board, sub-floor stanchion mastic, firewalls, floor tiles and mastic, etc. If any sub-floor activities are planned that may disturb these materials, you shall determine the asbestos content, or presumed asbestos content, and follow other appropriate JPR requirements.

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Table 12.15-1. Job Performance Requirements Listing

<b>Asbestos Work Class</b>	<b>Task Title</b>	<b>JPR No.</b>	<b>Reference App. 12B Atch No.</b>	<b>Min. Req'd Training</b>
<b>Class I</b>				
	Large-scale removal of structural or ceiling insulation (SAI or acoustical) (>3 ft <sup>2</sup> contiguous or >160 ft <sup>2</sup> cumulative)	I-1	12A	32-hr worker
	Small-scale removal of structural or ceiling insulation (SAI or acoustical) (1 to 3 ft <sup>2</sup> contiguous and <160 ft <sup>2</sup> cumulative)	I-2	12A	32-hr worker
	Spot removal of structural or ceiling insulation (SAI or acoustical) (<1 ft <sup>2</sup> contiguous and <160 ft <sup>2</sup> cumulative, or waste exceeds capacity of one standard waste bag)	I-3	12A	32-hr worker
	Large-scale removal of piping and vessel insulation (piping: >3 ft continuous or > 260 ft cumulative) (vessel: >3 ft <sup>2</sup> contiguous or >160 ft <sup>2</sup> cumulative or >35 ft <sup>3</sup> cumulative) (glovebag not technically feasible)	I-4	12A	32-hr worker
	Small-scale removal of piping and vessel insulation (piping: <3 ft continuous and < 260 ft cumulative) (vessel: <3 ft <sup>2</sup> contiguous and <160 ft <sup>2</sup> cumulative or <35 ft <sup>3</sup> cumulative) (glovebag not technically feasible)	I-5	12A	32-hr worker
	Small-scale removal of piping insulation using more than one glovebag; limited to 25 ft of insulation from one continuous pipe run or to 25 ft of cumulative insulation from a piping system at one location	I-6	12A	32-hour worker
<b>Class II</b>				
	Removal of or modification to wallboard, plaster, transite, ceiling tiles, flooring, roofing, or siding containing asbestos (friable material; airborne concentrations $\geq 0.01$ f/cc)	II-1	12B	32-hr worker
	Removal of or modification to wallboard, plaster, transite, ceiling tiles, flooring, roofing, or siding containing asbestos (Airborne concentrations <0.01 f/cc)	II-2	12B	32-hr worker

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Table 12.15-1 (continued)

<b>Asbestos Work Class</b>	<b>Task Title</b>	<b>JPR No.</b>	<b>Reference App. 12B Atch No.</b>	<b>Min. Req'd Training</b>
<b>Class II (cont'd)</b>	Removal of resilient sheet flooring using procedures and methods specified by the RFCI to include: (i) any quantity of ACM sheeting, or (ii) any quantity of sheeting with ACM backing or mastic	II-3	12B	32-hr worker plus RFCI
	Removal of flooring using procedures and methods specified by the RFCI to include: (i) any ACM vinyl or asphalt tile, or (ii) any vinyl or carpet tile with ACM mastic; where area exceeds 40 ft <sup>2</sup> or where waste will exceed the capacity of one standard waste bag	II-4	12B	32-hr worker plus RFCI
<b>Class III</b>				
Class III Glovebag	Repair steam, chilled water, hot water lines, and valves with asbestos-containing material	III-1	12C	16-hr O&M
Class III Barrier & Floor	Modification to structural steel members in close proximity to SAI (barrier and floor covering <32 ft <sup>2</sup> )	III-2	12D	16-hr O&M
Covering	Removal of wall partitions or plaster ceilings in close proximity to ACM (barrier and floor covering <32 ft <sup>2</sup> )	III-3	12D	16-hr O&M
	Removal or replacement of ACM or non-ACM ceiling tile(s) below ceiling plenum in buildings with SAI or fireproofing (waste limited to one standard waste bag) (ceiling opening <32 ft <sup>2</sup> )	III-4	12D	JSC 6-hr
	Removal of ACM ceiling tiles in buildings without SAI (waste limited to one standard waste bag) (ceiling opening of <32 ft <sup>2</sup> )	III-5	12D	JSC 6-hr
	Any activity in plenum above suspended ceiling tiles in buildings with SAI or fireproofing (ceiling opening <32 ft <sup>2</sup> )	III-6	12D	JSC 6-hr
	Spot removal of SAI (<1 ft <sup>2</sup> contiguous and <160 ft <sup>2</sup> cumulative) (waste limited to one standard waste bag)	III-7	12D	16-hr O&M
	Spot removal of ACM containing wallboard, tape, or mud (waste limited to one standard waste bag)	III-18	12D	16-hr O&M

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Table 12.15-1 (Continued)

<b>Asbestos Work Class</b>	<b>Task Title</b>	<b>JPR No.</b>	<b>Reference App. 12B Atch No.</b>	<b>Min. Req'd Training</b>
Class III Enclosure	Modification to structural steel members in close proximity to SAI (control zone $\geq 32$ ft <sup>2</sup> )	III-8	12E	16-hr O&M
	Removal of wall partitions or plaster ceilings in close proximity to ACM (control zone $\geq 32$ ft <sup>2</sup> )	III-9	12E	16-hr O&M
	Removal or replacement of non-ACM ceiling tile(s) below ceiling plenum in buildings with SAI or fireproofing (waste limited to one standard waste bag) (ceiling opening $\geq 32$ ft <sup>2</sup> )	III-10	12E	JSC 6-hr
	Removing ACM ceiling tiles (waste limited to one standard waste bag) (ceiling opening $\geq 32$ ft <sup>2</sup> )	III-11	12E	JSC 6-hr
	Any activity in plenum above suspended ceiling tiles in buildings with SAI or fireproofing (ceiling opening $\geq 32$ ft <sup>2</sup> )	III-12	12E	JSC 6-hr
Class III Other	Any activity below raised computer floor and sub-floor in buildings with spray-applied fireproofing or ACM acoustical ceilings	III-13	12F	JSC 6-hr
	Replacement of ACM valve gasket	III-14	12F	16-hr O&M
	Maintenance of equipment used in asbestos work	III-15	12F	16-hr O&M
	Repair of equipment with ACM insulation	III-16	12F	16-hr O&M
	Removal of 40 ft <sup>2</sup> or less of (i) ACM vinyl or asphalt floor tile; (ii) non-ACM floor tile with ACM mastic; or (iii) carpet tiles with ACM mastic, using procedures and methods specified by the RFCI (waste limited to one standard waste bag)	III-17	12F	16-hr O&M plus RFCI
<b>Class IV</b>				
	Changing air filters in HVAC system air-handling units	IV-1	12G	2-hr
	Custodial work in areas with exposed, friable ACM	IV-2	12G	2-hr
	Custodial work involving ACM flooring	IV-3	12G	2-hr
	Emergency response action to incidental fiber release	IV-4	12G	32-hr worker